

Notice of Allowability

Application No.

10/770,652

Applicant(s)

LINDENMEIER, HEINZ

Examiner

Tho G. Phan

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to a telephone interview with Mr. Frederick Dorchak on 3/10/05.
2. ☒ The allowed claim(s) is/are 1-16.
3. ☒ The drawings filed on 03 February 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

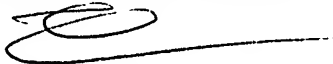
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 2/3/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


Tho G Phan
Primary Examiner
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DETAILED ACTION

REMARKS

Examiner telephoned the applicant's representative to suggest that claims 1-2, 6-7, 12-13 and 15 be amended to overcome the antecedent basis, that was approved by applicant's representative. The case is now in condition for allowance.

EXAMINER'S AMENDMENT

An Examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 C.F.R. § 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the Issue Fee.

Authorization for this Examiner's Amendment was given in a telephone interview with MR. Dorchak, Frederick (29,298) on 3/10/05.

The application has been amended as follows:

In the claims:

- ✓ Claim 1, line 12, "conductor" has been changed to – radiation --.
- ✓ Claim 2, line 4, "direction" has been changed to – directional--.
- ✓ Claim 6, line 5, "designed to have a closely tolerated directional diagram" has been inserted before –for--.
- ✓ Claim 7, line 1, "the" has been changed to – a --.
- ✓ Claim 7, line 2, "the" has been changed to – a --.
- ✓ Claim 7, line 5, "designed to have a closely tolerated directional diagram" has been inserted before –for--.

- ✓ Claim 12, line 4, "additional" has been changed to – second--.
- ✓ Claim 12, line 5, "antennas" has been changed to – antenna--.
- ✓ Claim 12, line 5, "are" has been changed to – is--.
- ✓ Claim 12, line 8, "additional" has been changed to – second--.
- ✓ Claim 12, line 8, "antennas" has been changed to – antenna--.
- ✓ Claim 13, line 7, "the" (first occurrence) has been deleted.
- ✓ Claim 15, line 2, "13" has been changed to – 14--.
- ✓ Claim 15, line 2, "the" has been deleted.

Allowable Subject Matter

1. The following is a statement of reasons for the indication of allowable subject matter: Claim 1 is allowable over the art of record because the prior art does not teach the second antenna having a plurality of spaced-apart conductor parts, and radiation-coupled with the at least one conductor part of the first antenna, the conductor parts of the second antenna being divided into segments defining interruption points therebetween, the greatest dimension for each segment being selected to be smaller than $\frac{3}{8}$ of the wavelength for the frequency range of the first wireless communication service and in combination with the remaining claimed limitations.

Claim 6 is allowable over the art of record because the prior art does not teach the reactance circuits designed as parallel resonance circuits, the resonance frequency of which is tuned to the average frequency of the frequency range of the first wireless communication service and having dummy elements

selected so that the impedance in effect between the interruption points is sufficiently great, in each instance, over the frequency bandwidth, so that the closely predetermined tolerances of the directional diagram are not exceeded and in combination with the remaining claimed limitations.

Claim 7 is allowable over the art of record because the prior art does not teach the reactance circuits coupled between the antenna segments as parallel resonance circuits, the resonance frequency of which is tuned approximately to the average frequency of the frequency range of the first wireless communication service and having dummy elements selected so that their impedance, with respect to the capacitance between the edges of the antenna segments is sufficiently large, in each instance, over the frequency bandwidth, so that the closely predetermined tolerances of the directional diagram are not exceeded and in combination with the remaining claimed limitations.

Conclusion

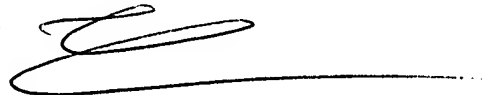
2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Lopez et al, Rawle, Stites et al, DeSantis et al and Lindenmeier et al are cited as of interested and illustrated a similar structure to a combination antenna assembly.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tho G. Phan whose telephone number is 571-272-1826. The examiner can normally be reached on M-F, 9:30-6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tho G Phan
Primary Examiner
Art Unit 2821